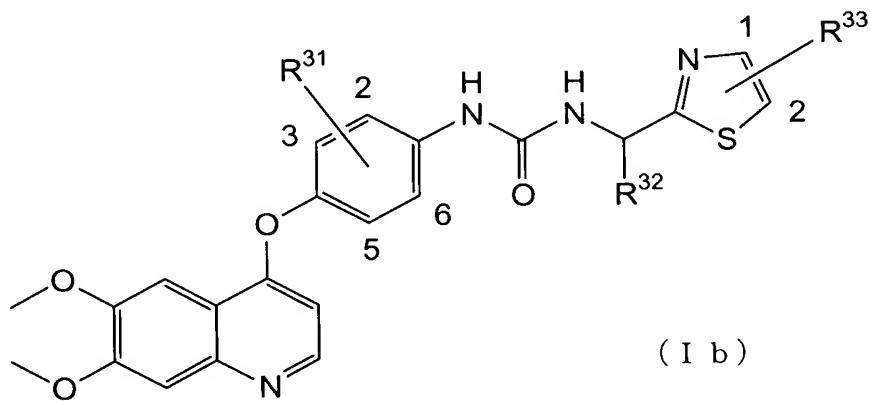


IN THE CLAIMS

Please amend the claims as follows:

Claims 1-18 (Cancelled)

Claim 19 (Currently Amended): A compound of formula (Ib) or a pharmaceutically acceptable salt ~~or solvate~~ thereof:



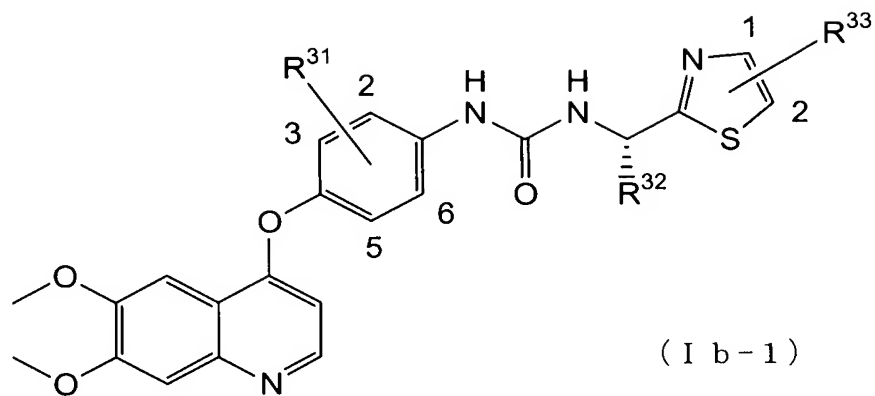
wherein

$R^{31}$  represents a hydrogen atom, a fluorine atom at 2-position, a fluorine atom at 3-position, methoxy at 2-position, methoxy at 3-position, or methyl at 2- and 5-positions,

$R^{32}$  represents methyl, and

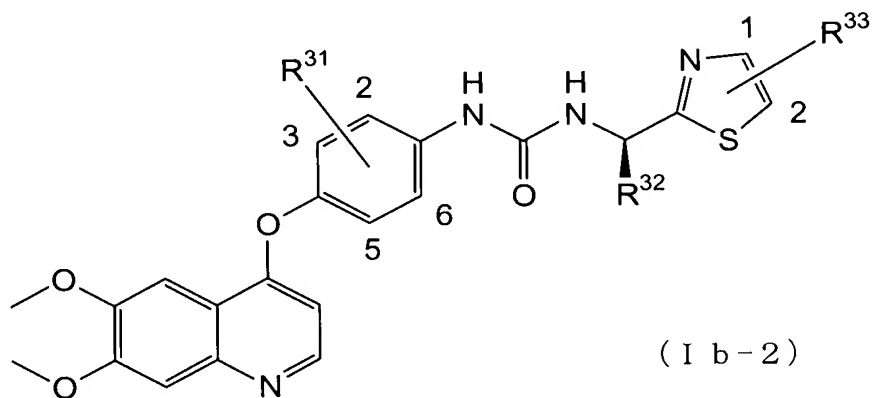
$R^{33}$  represents a hydrogen atom, methyl at 1-position, methyl at 2-position, or methyl at 1- and 2-positions.

Claim 20 (Previously Presented): The compound according to claim 19, wherein the compound represented by formula (Ib) is represented by formula (Ib-1):



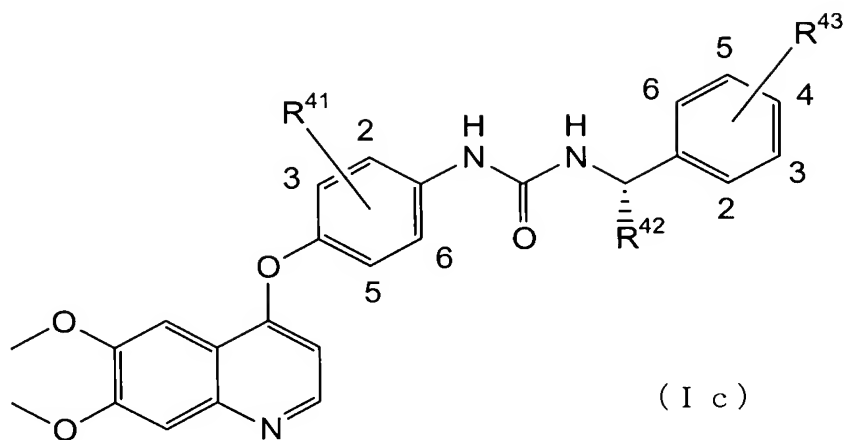
wherein  $R^{31}$ ,  $R^{32}$ , and  $R^{33}$  are as defined in formula (Ib).

Claim 21 (Previously Presented): The compound according to claim 19, wherein the compound represented by formula (Ib) is represented by formula (Ib-2):



wherein  $R^{31}$ ,  $R^{32}$ , and  $R^{33}$  are as defined in formula (Ib).

Claim 22 (Currently Amended): A compound of formula (Ic) or a pharmaceutically acceptable salt or solvate thereof:



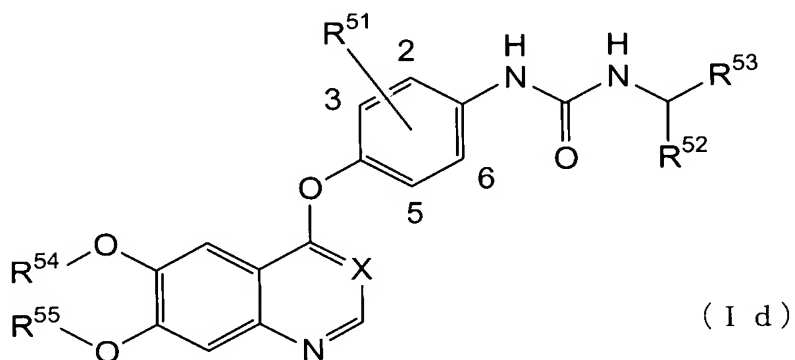
wherein

$R^{41}$  represents a hydrogen atom, a fluorine atom at 2-position, a fluorine atom at 3-position, a chlorine atom at 2-position, a chlorine atom at 3-position, methyl at 2- and 3-positions, methyl at 2- and 5-positions, methoxy at 2-position, methoxy at 3-position, methyl at 2-position, or trifluoromethyl at 2-position,

$R^{42}$  represents methyl,

$R^{43}$  represents a fluorine atom at 4-position, a bromine atom at 3-position, a bromine atom at 4-position, methoxy at 2-position, methoxy at 3-position, methoxy at 4-position, a chlorine atom at 4-position, methyl at 4-position, or nitro at 4-position.

Claim 23 (Currently Amended): A compound of formula (Id) or a pharmaceutically acceptable salt ~~or solvate~~ thereof:



wherein

X represents CH or N,

R<sup>51</sup> represents a hydrogen atom, a fluorine atom at 2-position, a fluorine atom at 3-position, methoxy at 2-position, methoxy at 3-position, or methyl at 2- and 5-positions,

R<sup>52</sup> represents methyl,

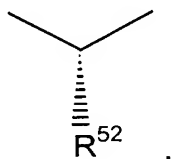
R<sup>53</sup> represents imidazolyl, pyrazolyl, oxazolyl, isoxazolyl, thiazolyl, or isothiazolyl in which one or two hydrogen atoms on the groups are optionally substituted by a halogen atom or C<sub>1-4</sub> alkyl, and

R<sup>54</sup> and R<sup>55</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-6</sub> alkyl in which the alkyl group is optionally substituted by hydroxyl; a halogen atom; -OR<sup>56</sup> wherein R<sup>56</sup> represents C<sub>1-4</sub> alkyl; -NR<sup>57</sup>R<sup>58</sup> wherein R<sup>57</sup> and R<sup>58</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl in which the alkyl group is optionally substituted by hydroxyl or -OR<sup>59</sup> wherein R<sup>59</sup> represents C<sub>1-4</sub> alkyl; or a saturated or unsaturated three- to seven-membered carbocyclic or heterocyclic group in which the carbocyclic and heterocyclic groups are optionally substituted by one or two halogen atoms or C<sub>1-4</sub> alkyl.

Claim 24 (Original): The compound according to claim 23, wherein

X represents CH, and

R<sup>52</sup> represents



Claim 25 (Original): The compound according to claim 24, wherein R<sup>54</sup> and R<sup>55</sup> represent methyl.

Claim 26 (Original): The compound according to claim 24, wherein

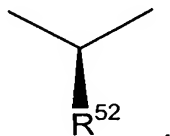
R<sup>54</sup> represents methyl, and

$R^{55}$  represents  $C_{1-4}$  alkyl substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 27 (Original): The compound according to claim 23, wherein

X represents CH, and

$R^{52}$  represents



Claim 28 (Original): The compound according to claim 27, wherein  $R^{54}$  and  $R^{55}$  represent methyl.

Claim 29 (Original): The compound according to claim 27, wherein

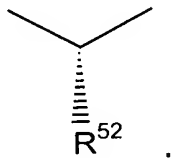
$R^{54}$  represents methyl, and

$R^{55}$  represents  $C_{1-4}$  alkyl substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 30 (Original): The compound according to claim 23, wherein

X represents N, and

$R^{52}$  represents



Claim 31 (Original): The compound according to claim 30, wherein  $R^{54}$  and  $R^{55}$  represent methyl.

Claim 32 (Original): The compound according to claim 30, wherein

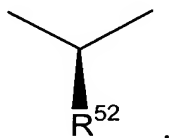
R<sup>54</sup> represents methyl, and

R<sup>55</sup> represents C<sub>1-4</sub> alkyl substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 33 (Original): The compound according to claim 23, wherein

X represents N, and

R<sup>52</sup> represents



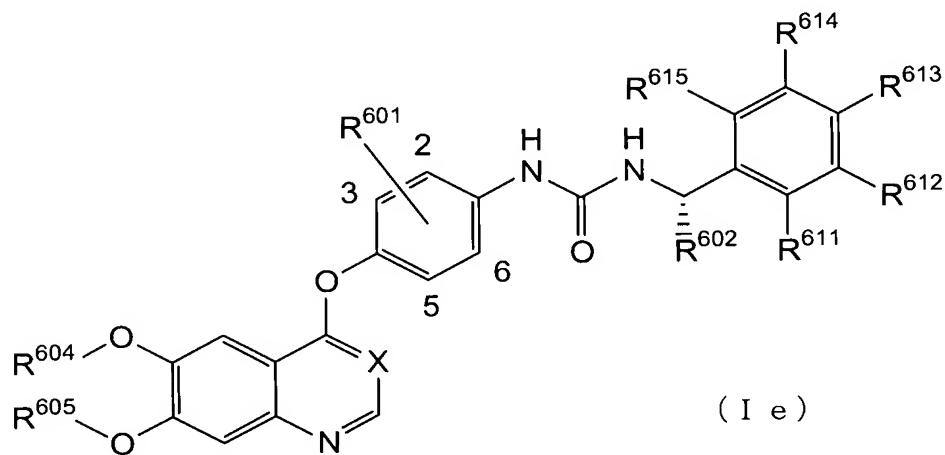
Claim 34 (Original): The compound according to claim 33, wherein R<sup>54</sup> and R<sup>55</sup> represent methyl.

Claim 35 (Original): The compound according to claim 33, wherein

R<sup>54</sup> represents methyl, and

R<sup>55</sup> represents C<sub>1-4</sub> alkyl substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 36 (Currently Amended): A compound of formula (Ie) or a pharmaceutically acceptable salt or solvate thereof:



(I e)

wherein

$R^{601}$  represents a hydrogen atom, a fluorine atom at 2-position, a fluorine atom at 3-position, a chlorine atom at 2-position, a chlorine atom at 3-position, methyl at 2- and 3-positions, methyl at 2- and 5-positions, methoxy at 2-position, methoxy at 3-position, methyl at 2-position, or trifluoromethyl at 2-position,

$R^{602}$  represents methyl,

X represents N or CH,

$R^{604}$  and  $R^{605}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-6}$  alkyl in which the alkyl group is optionally substituted by hydroxyl; a halogen atom;  $-OR^{606}$  wherein  $R^{606}$  represents  $C_{1-4}$  alkyl;  $-NR^{607}R^{608}$  wherein  $R^{607}$  and  $R^{608}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl in which the alkyl group is optionally substituted by hydroxyl or  $-OR^{609}$  wherein  $R^{609}$  represents  $C_{1-4}$  alkyl; or a saturated or unsaturated three- to seven-membered carbocyclic or heterocyclic group in which the carbocyclic and heterocyclic groups are optionally substituted by one or two halogen atoms or  $C_{1-4}$  alkyl, and

$R^{611}$ ,  $R^{612}$ ,  $R^{613}$ ,  $R^{614}$ , and  $R^{615}$ , which may be the same or different, represent a hydrogen atom;  $C_{1-6}$  alkyl;  $-OR^{616}$  wherein  $R^{616}$  represents  $C_{1-4}$  alkyl; a halogen atom; nitro; or  $-NR^{617}R^{618}$  wherein  $R^{617}$  and  $R^{618}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl in which the alkyl group is optionally substituted by hydroxyl,  $-OR^{619}$  wherein  $R^{619}$  represents  $C_{1-4}$  alkyl, or  $-NR^{620}R^{621}$  wherein  $R^{620}$  and  $R^{621}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl.

Claim 37 (Original): The compound according to claim 36, wherein X represents CH and all of  $R^{611}$ ,  $R^{612}$ ,  $R^{613}$ ,  $R^{614}$ , and  $R^{615}$  represent a hydrogen atom, or any one of  $R^{611}$ ,  $R^{612}$ ,  $R^{613}$ ,  $R^{614}$ , and  $R^{615}$  represents a group other than a hydrogen atom and the remaining groups represent a hydrogen atom.

Claim 38 (Original): The compound according to claim 37, wherein all of  $R^{611}$ ,  $R^{612}$ ,  $R^{613}$ ,  $R^{614}$ , and  $R^{615}$  represent a hydrogen atom, or any one of  $R^{611}$ ,  $R^{612}$ ,  $R^{613}$ ,  $R^{614}$ , and  $R^{615}$  represents  $C_{1-6}$  alkyl,  $-OR^{616}$ , a halogen atom, or nitro and the remaining groups represent a hydrogen atom.

Claim 39 (Original): The compound according to claim 38, wherein  $R^{611}$  represents methoxy and  $R^{612}$ ,  $R^{613}$ ,  $R^{614}$ , and  $R^{615}$  represent a hydrogen atom, or  $R^{612}$  represents a bromine atom or methoxy and  $R^{611}$ ,  $R^{613}$ ,  $R^{614}$ , and  $R^{615}$  represent a hydrogen atom, or  $R^{613}$  represents a bromine atom, a chlorine atom, a fluorine atom, methyl, methoxy, or nitro and  $R^{611}$ ,  $R^{612}$ ,  $R^{614}$ , and  $R^{615}$  represent a hydrogen atom.

Claim 40 (Previously Presented): The compound according to claim 37, wherein  $R^{604}$  and  $R^{605}$  represent methyl.

Claim 41 (Previously Presented): The compound according to claim 37, wherein  $R^{604}$  represents methyl and  $R^{605}$  represents  $C_{1-4}$  alkyl substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 42 (Original): The compound according to claim 36, wherein X represents N and all of  $R^{611}$ ,  $R^{612}$ ,  $R^{613}$ ,  $R^{614}$ , and  $R^{615}$  represent a hydrogen atom, or any one of  $R^{611}$ ,  $R^{612}$ ,  $R^{613}$ ,  $R^{614}$ , and  $R^{615}$  represents a group other than a hydrogen atom and the remaining groups represent a hydrogen atom.

Claim 43 (Original): The compound according to claim 42, wherein all of  $R^{611}$ ,  $R^{612}$ ,  $R^{613}$ ,  $R^{614}$ , and  $R^{615}$  represent a hydrogen atom, or any one of  $R^{611}$ ,  $R^{612}$ ,  $R^{613}$ ,  $R^{614}$ , and  $R^{615}$  represents  $C_{1-6}$  alkyl,  $-OR^{616}$ , a halogen atom, or nitro and the remaining groups represent a hydrogen atom.

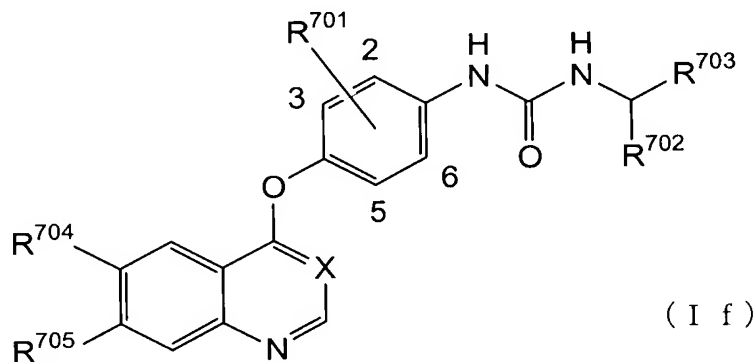


Claim 44 (Original): The compound according to claim 43, wherein  $R^{611}$  represents methoxy and  $R^{612}$ ,  $R^{613}$ ,  $R^{614}$ , and  $R^{615}$  represent a hydrogen atom, or  $R^{612}$  represents a bromine atom or methoxy and  $R^{611}$ ,  $R^{613}$ ,  $R^{614}$ , and  $R^{615}$  represent a hydrogen atom, or  $R^{613}$  represents a bromine atom, a chlorine atom, a fluorine atom, methyl, methoxy, or nitro and  $R^{611}$ ,  $R^{612}$ ,  $R^{614}$ , and  $R^{615}$  represent a hydrogen atom.

Claim 45 (Previously Presented): The compound according to claim 42, wherein  $R^{604}$  and  $R^{605}$  represent methyl.

Claim 46 (Previously Presented): The compound according to claim 42, wherein  $R^{604}$  represents methyl and  $R^{605}$  represents  $C_{1-4}$  alkyl substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 47 (Currently Amended): A compound of formula (If) or a pharmaceutically acceptable salt or solvate thereof:



wherein

X represents CH or N,

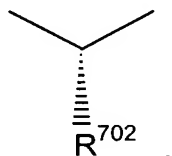
$R^{701}$  represents a hydrogen atom, a fluorine atom at 2-position, a fluorine atom at 3-position, methoxy at 2-position, methoxy at 3-position, or methyl at 2- and 5-positions,

$R^{702}$  represents  $C_{1-4}$  alkyl,

$R^{703}$  represents imidazolyl, pyrazolyl, oxazolyl, isoxazolyl, thiazolyl, or isothiazolyl in which one or two hydrogen atoms on the groups are optionally substituted by a halogen atom or  $C_{1-4}$  alkyl, and

$R^{704}$  and  $R^{705}$ , which may be the same or different, represent a hydrogen atom; hydroxyl; nitro; cyano; a halogen atom;  $-NR^{706}R^{707}$  wherein  $R^{706}$  and  $R^{707}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl in which the alkyl group is optionally substituted by hydroxyl,  $-OR^{708}$  wherein  $R^{708}$  represents  $C_{1-4}$  alkyl, or  $-NR^{709}R^{710}$  wherein  $R^{709}$  and  $R^{710}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl;  $—CONR^{711}R^{712}$  wherein  $R^{711}$  and  $R^{712}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl in which the alkyl group is optionally substituted by hydroxyl,  $-OR^{713}$  wherein  $R^{713}$  represents  $C_{1-4}$  alkyl, or  $-NR^{714}R^{715}$  wherein  $R^{714}$  and  $R^{715}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl;  $—COOR^{716}$  wherein  $R^{716}$  represents a hydrogen atom or  $C_{1-4}$  alkyl in which the alkyl group is optionally substituted by hydroxyl,  $-OR^{717}$  wherein  $R^{717}$  represents  $C_{1-4}$  alkyl, or  $-NR^{718}R^{719}$  wherein  $R^{718}$  and  $R^{719}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl;  $C_{1-6}$  alkyl;  $C_{2-6}$  alkenyl;  $C_{2-6}$  alkynyl; or  $C_{1-6}$  alkoxy, in which the alkyl, alkenyl, alkynyl, and alkoxy groups are optionally substituted by hydroxyl, a halogen atom,  $-OR^{720}$  in which  $R^{720}$  represents  $C_{1-4}$  alkyl,  $-NR^{721}R^{722}$  wherein  $R^{721}$  and  $R^{722}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl in which the alkyl group is optionally substituted by hydroxyl or  $-OR^{723}$  wherein  $R^{723}$  represents  $C_{1-4}$  alkyl, or a saturated or unsaturated three- to seven-membered carbocyclic or heterocyclic group in which the carbocyclic and heterocyclic groups are optionally substituted by one or two halogen atoms or  $C_{1-4}$  alkyl.

Claim 48 (Original): The compound according to claim 47, wherein X represents CH, and  $R^{702}$  represents

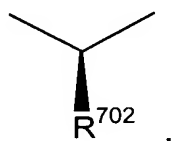


Claim 49 (Original): The compound according to claim 48, wherein R<sup>702</sup> represents methyl.

Claim 50 (Previously Presented): The compound according to claim 48, wherein R<sup>704</sup> and R<sup>705</sup> represent methoxy.

Claim 51 (Previously Presented): The compound according to claim 48, wherein R<sup>704</sup> represents methoxy, and R<sup>705</sup> represents C<sub>1-4</sub> alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 52 (Original): The compound according to claim 47, wherein X represents CH, and R<sup>702</sup> represents

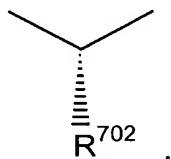


Claim 53 (Original): The compound according to claim 52, wherein R<sup>702</sup> represents methyl.

Claim 54 (Previously Presented): The compound according to claim 52, wherein R<sup>704</sup> and R<sup>705</sup> represent methoxy.

Claim 55 (Previously Presented): The compound according to claim 52, wherein R<sup>704</sup> represents methoxy, and R<sup>705</sup> represents C<sub>1-4</sub> alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 56 (Original): The compound according to claim 47, wherein X represents N, and R<sup>702</sup> represents

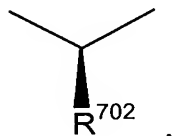


Claim 57 (Original): The compound according to claim 56, wherein R<sup>702</sup> represents methyl.

Claim 58 (Previously Presented): The compound according to claim 56, wherein R<sup>704</sup> and R<sup>705</sup> represent methoxy.

Claim 59 (Previously Presented): The compound according to claim 56, wherein R<sup>704</sup> represents methoxy, R<sup>705</sup> represents C<sub>1-4</sub> alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 60 (Original): The compound according to claim 47, wherein X represents N, and R<sup>702</sup> represents

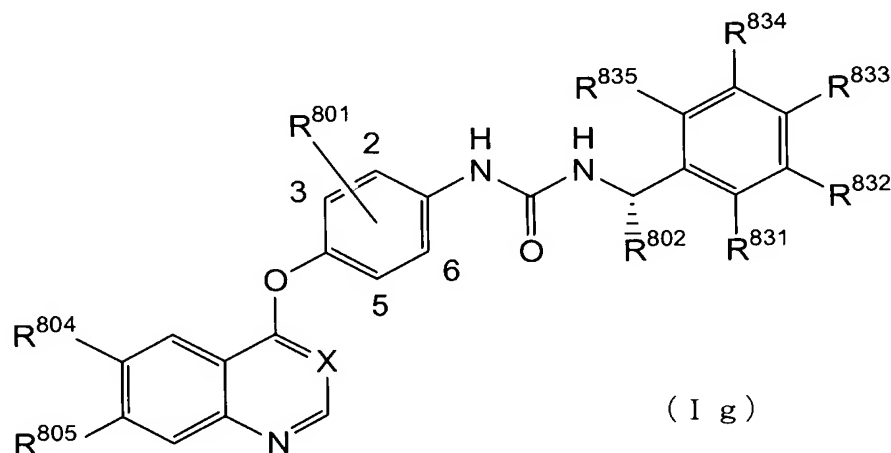


Claim 61 (Original): The compound according to claim 60, wherein R<sup>702</sup> represents methyl.

Claim 62 (Previously Presented): The compound according to claim 60, wherein R<sup>704</sup> and R<sup>705</sup> represent methoxy.

Claim 63 (Previously Presented): The compound according to claim 60, wherein  $R^{704}$  represents methoxy, and  $R^{705}$  represents  $C_{1-4}$  alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 64 (Currently Amended): A compound of formula (Ig) or a pharmaceutically acceptable salt or solvate thereof:



wherein

X represents CH or N,

$R^{801}$  represents a hydrogen atom, a fluorine atom at 2-position, a fluorine atom at 3-position, a chlorine atom at 2-position, a chlorine atom at 3-position, methyl at 2- and 3-positions, methyl at 2- and 5-positions, methoxy at 2-position, methoxy at 3-position, methyl at 2-position, or trifluoromethyl at 2-position,

$R^{802}$  represents  $C_{1-4}$  alkyl,

$R^{804}$  and  $R^{805}$ , which may be the same or different, represent a hydrogen atom; hydroxyl; nitro; cyano; a halogen atom;  $-NR^{806}R^{807}$  wherein  $R^{806}$  and  $R^{807}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl in which the alkyl group is optionally substituted by hydroxyl,  $-OR^{808}$  wherein  $R^{808}$  represents  $C_{1-4}$  alkyl, or  $-NR^{809}R^{810}$  wherein  $R^{809}$  and  $R^{810}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl;  $—CONR^{811}R^{812}$  wherein  $R^{811}$  and  $R^{812}$ , which may be the same or different, represent a

hydrogen atom or C<sub>1-4</sub> alkyl in which the alkyl group is optionally substituted by hydroxyl, -OR<sup>813</sup> wherein R<sup>813</sup> represents C<sub>1-4</sub> alkyl, or -NR<sup>814</sup>R<sup>815</sup> wherein R<sup>814</sup> and R<sup>815</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl; —COOR<sup>816</sup> wherein R<sup>816</sup> represents a hydrogen atom or C<sub>1-4</sub> alkyl in which the alkyl group is optionally substituted by hydroxyl, -OR<sup>817</sup> wherein R<sup>817</sup> represents C<sub>1-4</sub> alkyl, or -NR<sup>818</sup>R<sup>819</sup> wherein R<sup>818</sup> and R<sup>819</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl; C<sub>1-6</sub> alkyl; C<sub>2-6</sub> alkenyl; C<sub>2-6</sub> alkynyl; or C<sub>1-6</sub> alkoxy, in which the alkyl, alkenyl, alkynyl, and alkoxy groups are optionally substituted by hydroxyl, a halogen atom, -OR<sup>820</sup> in which R<sup>820</sup> represents C<sub>1-4</sub> alkyl, -NR<sup>821</sup>R<sup>822</sup> wherein R<sup>821</sup> and R<sup>822</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl in which the alkyl group is optionally substituted by hydroxyl or -OR<sup>823</sup> wherein R<sup>823</sup> represents C<sub>1-4</sub> alkyl, or a saturated or unsaturated three- to seven-membered carbocyclic or heterocyclic group in which the carbocyclic and heterocyclic groups are optionally substituted by one or two halogen atoms or C<sub>1-4</sub> alkyl, and

R<sup>831</sup>, R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup>, which may be the same or different, represent a hydrogen atom; hydroxyl; C<sub>1-6</sub> alkyl; -OR<sup>836</sup> wherein R<sup>836</sup> represents C<sub>1-4</sub> alkyl; a halogen atom; nitro; or -NR<sup>837</sup>R<sup>838</sup> wherein R<sup>837</sup> and R<sup>838</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl in which the alkyl group is optionally substituted by hydroxyl, -OR<sup>839</sup> wherein R<sup>839</sup> represents C<sub>1-4</sub> alkyl, or -NR<sup>840</sup>R<sup>841</sup> wherein R<sup>840</sup> and R<sup>841</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl.

Claim 65 (Original): The compound according to claim 64, wherein X represents CH and all of R<sup>831</sup>, R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom, or any one of R<sup>831</sup>, R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represents a group other than a hydrogen atom and the remaining groups represent a hydrogen atom.

Claim 66 (Original): The compound according to claim 65, wherein all of  $R^{831}$ ,  $R^{832}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represent a hydrogen atom, or any one of  $R^{831}$ ,  $R^{832}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represents  $C_{1-6}$  alkyl,  $-OR^{836}$ , a halogen atom, or nitro and the remaining groups represent a hydrogen atom.

Claim 67 (Original): The compound according to claim 65, wherein  $R^{831}$  represents methoxy and  $R^{832}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represent a hydrogen atom, or  $R^{832}$  represents a bromine atom or methoxy and  $R^{831}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represent a hydrogen atom, or  $R^{833}$  represents a bromine atom, a chlorine atom, a fluorine atom, methyl, methoxy, or nitro and  $R^{831}$ ,  $R^{832}$ ,  $R^{834}$ , and  $R^{835}$  represent a hydrogen atom.

Claim 68 (Previously Presented): The compound according to claim 65, wherein  $R^{804}$  and  $R^{805}$  represent methoxy.

Claim 69 (Previously Presented): The compound according to claim 65, wherein  $R^{804}$  represents methoxy and  $R^{805}$  represents  $C_{1-4}$  alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 70 (Original): The compound according to claim 64, wherein X represents CH,  $R^{802}$  represents methyl, and all of  $R^{831}$ ,  $R^{832}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represent a hydrogen atom, or any one of  $R^{831}$ ,  $R^{832}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represents a group other than a hydrogen atom and the remaining groups represent a hydrogen atom.

Claim 71 (Original): The compound according to claim 70, wherein all of  $R^{831}$ ,  $R^{832}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represent a hydrogen atom, or any one of  $R^{831}$ ,  $R^{832}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represents  $C_{1-6}$  alkyl,  $-OR^{836}$ , a halogen atom, or nitro and the remaining groups represent a hydrogen atom.

Claim 72 (Original): The compound according to claim 70, wherein  $R^{831}$  represents methoxy and  $R^{832}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represent a hydrogen atom, or  $R^{832}$  represents a bromine atom or methoxy and  $R^{831}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represent a hydrogen atom, or  $R^{833}$  represents a bromine atom, a chlorine atom, a fluorine atom, methyl, methoxy, or nitro and  $R^{831}$ ,  $R^{832}$ ,  $R^{834}$ , and  $R^{835}$  represent a hydrogen atom.

Claim 73 (Previously Presented): The compound according to claim 70, wherein  $R^{804}$  and  $R^{805}$  represent methoxy.

Claim 74 (Previously Presented): The compound according to claim 70, wherein  $R^{804}$  represents methoxy and  $R^{805}$  represents  $C_{1-4}$  alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 75 (Original): The compound according to claim 64, wherein X represents N and all of  $R^{831}$ ,  $R^{832}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represent a hydrogen atom, or any one of  $R^{831}$ ,  $R^{832}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represents a group other than a hydrogen atom and the remaining groups represent a hydrogen atom.

Claim 76 (Original): The compound according to claim 75, wherein all of  $R^{831}$ ,  $R^{832}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represent a hydrogen atom, or any one of  $R^{831}$ ,  $R^{832}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represents  $C_{1-6}$  alkyl,  $-OR^{836}$ , a halogen atom, or nitro and the remaining groups represent a hydrogen atom.

Claim 77 (Original): The compound according to claim 75, wherein  $R^{831}$  represents methoxy and  $R^{832}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represent a hydrogen atom, or  $R^{832}$  represents a bromine atom or methoxy and  $R^{831}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represent a hydrogen atom, or  $R^{833}$  represents a bromine atom, a chlorine atom, a fluorine atom, methyl, methoxy, or nitro and  $R^{831}$ ,  $R^{832}$ ,  $R^{834}$ , and  $R^{835}$  represent a hydrogen atom.



Claim 78 (Previously Presented): The compound according to claim 75, wherein  $R^{804}$  and  $R^{805}$  represent methoxy.

Claim 79 (Previously Presented): The compound according to claim 75, wherein  $R^{804}$  represents methoxy and  $R^{805}$  represents  $C_{1-4}$  alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 80 (Original): The compound according to claim 64, wherein X represents N,  $R^{802}$  represents methyl, and all of  $R^{831}$ ,  $R^{832}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represent a hydrogen atom, or any one of  $R^{831}$ ,  $R^{832}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represents a group other than a hydrogen atom and the remaining groups represent a hydrogen atom.

Claim 81 (Original): The compound according to claim 80, wherein all of  $R^{831}$ ,  $R^{832}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represent a hydrogen atom, or any one of  $R^{831}$ ,  $R^{832}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represents  $C_{1-6}$  alkyl,  $-OR^{836}$ , a halogen atom, or nitro and the remaining groups represent a hydrogen atom.

Claim 82 (Original): The compound according to claim 80, wherein  $R^{831}$  represents methoxy and  $R^{832}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represent a hydrogen atom, or  $R^{832}$  represents a bromine atom or methoxy and  $R^{831}$ ,  $R^{833}$ ,  $R^{834}$ , and  $R^{835}$  represent a hydrogen atom, or  $R^{833}$  represents a bromine atom, a chlorine atom, a fluorine atom, methyl, methoxy, or nitro and  $R^{831}$ ,  $R^{832}$ ,  $R^{834}$ , and  $R^{835}$  represent a hydrogen atom.

Claim 83 (Previously Presented): The compound according to claim 80, wherein  $R^{804}$  and  $R^{805}$  represent methoxy.

Claim 84 (Previously Presented): The compound according to claim 80, wherein  $R^{804}$  represents methoxy and  $R^{805}$  represents  $C_{1-4}$  alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 85 (Cancelled)

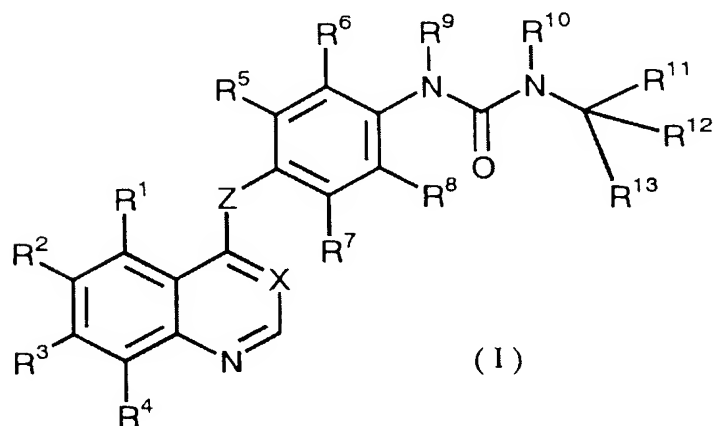
Claim 86 (Currently Amended): A pharmaceutical composition comprising a compound according to any one of claims 19, 22, 23, 36, 47, or 64, or a pharmaceutically acceptable salt ~~or solvate~~ thereof as an active ingredient.

Claims 87-90. (Canceled)

Claim 91 (Currently Amended): A method for treating osteoporosis or bone metastasis of a malignant tumor-comprising:

administering a therapeutically effective amount of a compound of formula I or a pharmaceutically acceptable salt ~~or solvate~~ thereof ~~or a pharmaceutically acceptable salt or solvate thereof~~ to a mammal in need thereof,

wherein formula I is:



wherein

X represents CH or N;

Z represents O or S;

$R^1$ ,  $R^2$ , and  $R^3$ , which may be the same or different, represent a hydrogen atom; a halogen atom; hydroxyl; cyano;  $C_{1-6}$  alkyl;  $C_{1-6}$  alkoxy;  $C_{2-6}$  alkenyl;  $C_{2-6}$  alkynyl; nitro; - $NR^{106}R^{107}$  wherein  $R^{106}$  and  $R^{107}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl in which the alkyl group is optionally substituted by hydroxyl, - $OR^{108}$  wherein  $R^{108}$  represents  $C_{1-4}$  alkyl, or - $NR^{109}R^{110}$  wherein  $R^{109}$  and  $R^{110}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl; - $CONR^{111}R^{112}$  wherein  $R^{111}$  and  $R^{112}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl in which the alkyl group is optionally substituted by hydroxyl, - $OR^{113}$  wherein  $R^{113}$  represents  $C_{1-4}$  alkyl, or - $NR^{114}R^{115}$  wherein  $R^{114}$  and  $R^{115}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl; or - $COOR^{116}$  wherein  $R^{116}$  represents a hydrogen atom or  $C_{1-4}$  alkyl in which the alkyl group is optionally substituted by hydroxyl, - $OR^{117}$  wherein  $R^{117}$  represents  $C_{1-4}$  alkyl, or - $NR^{118}R^{119}$  wherein  $R^{118}$  and  $R^{119}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl in which the  $C_{1-6}$  alkyl,  $C_{1-6}$  alkoxy,  $C_{2-6}$  alkenyl, and  $C_{2-6}$  alkynyl groups are optionally substituted by a halogen atom; hydroxyl;  $C_{1-4}$  alkyl;  $C_{1-4}$  alkoxy;  $C_{1-4}$  alkoxycarbonyl; amino in which one or two hydrogen atoms on the amino group each are optionally substituted by  $C_{1-4}$  alkyl optionally substituted by hydroxyl or  $C_{1-4}$  alkoxy; group  $R^{15}R^{16}N-C(=O)-O-$  wherein  $R^{15}$  and  $R^{16}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl in which the alkyl group is optionally substituted by hydroxyl or  $C_{1-4}$  alkoxy; or group  $R^{17}-(S)_m-$  wherein  $R^{17}$  represents a saturated or unsaturated three- to seven-membered carbocyclic or heterocyclic group optionally substituted by a halogen atom or  $C_{1-4}$  alkyl and m is 0 (zero) or 1,

$R^4$  represents a hydrogen atom,

$R^5$ ,  $R^6$ ,  $R^7$ , and  $R^8$ , which may be the same or different, represent a hydrogen atom, a halogen atom,  $C_{1-4}$  alkyl,  $C_{1-4}$  alkoxy,  $C_{1-4}$  alkylthio, trifluoromethyl, nitro, or amino,

$R^9$  and  $R^{10}$ , which may be the same or different, represent a hydrogen atom,  $C_{1-6}$  alkyl, or  $C_{1-4}$  alkylcarbonyl, and

any one of  $R^{11}$  and  $R^{12}$  represents a hydrogen atom while the other represents  $C_{1-4}$  alkyl, and  $R^{13}$  represents a saturated or unsaturated three- to seven-membered carbocyclic or heterocyclic group or a saturated or unsaturated nine- to twelve-membered bicyclic carbocyclic group in which the carbocyclic and heterocyclic groups are optionally substituted by a halogen atom; hydroxyl;  $C_{1-4}$  alkyl;  $C_{1-4}$  alkoxy;  $C_{1-4}$  alkylthio; trifluoromethyl; nitro; or  $-NR^{137}R^{138}$  wherein  $R^{137}$  and  $R^{138}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl in which the alkyl group is optionally substituted by hydroxyl,  $-OR^{139}$  wherein  $R^{139}$  represents  $C_{1-4}$  alkyl, or  $-NR^{140}R^{141}$  wherein  $R^{140}$  and  $R^{141}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl, or

$R^{11}$  represents a hydrogen atom, and  $R^{12}$  and  $R^{13}$  may combine with a carbon atom attached thereto to form a saturated or unsaturated nine- to twelve-membered bicyclic carbocyclic group.

Claim 92 (Previously Presented): The method according to claim 91, wherein the disease is osteoporosis.

Claim 93 (Previously Presented): The method of claim 92, wherein the disease is a bone metastasis of a malignant tumor where the malignant tumor is selected from the group consisting of breast cancer, prostatic cancer, lung cancer, and multiple myeloma.

Claim 94 (Cancelled)

Claim 95 (Previously Presented): The compound according to claim 19, which is selected from the group consisting of:

(70)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl}-N'-[1-(1,3-thiazol-2-yl)ethyl]urea;

(71)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl}-N'-[(1S)-1-(1,3-thiazol-2-yl)ethyl]urea;

(72)N-{4[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl}-N'-[(1R)-1-(1,3-thiazol-2-yl)ethyl]urea;

(73)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-fluorophenyl}-N'-[1-(1,3-thiazol-2-yl)ethyl]urea;

(74)N-{4[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl}-N'-[1-(1,3-thiazol-2-yl)ethyl]urea;

(75)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl}-N'-[(1S)-1-(1,3-thiazol-2-yl)ethyl]urea;

(76)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl}-N'-[(1R)-1-(1,3-thiazol-2-yl)ethyl]urea;

(77)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[1-(1,3 -thiazol-2-yl)ethyl]urea;

(78)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[(1S)-1-(1,3-thiazol-2-yl)ethyl]urea;

(79)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[(1R)-1 --(1,3-thiazol-2-yl)ethyl]urea;

(80)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-methoxyphenyl}-N'-[1-(1,3-thiazol-2-yl)ethyl]urea;

(81)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-methoxyphenyl}-N'-[(1S)-1-(1,3-thiazol-2-yl)ethyl]urea;

(82)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-methoxyphenyl}-N'-[(1R)-1-(1,3-thiazol-2-yl)ethyl]urea;

(86)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2,5-dimethylphenyl}-N'-[(1S)-1-(1,3-thiazol-2-yl)ethyl]urea;

(87)N-{4[(6,7-dimethoxy-4-quinolyl)oxy]-2,5-dimethylphenyl}-N'-[(1R)-1-(1,3-thiazol-2-yl)ethyl]urea;

(88)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl}-N'-1-(4-methyl-1,3-thiazol-2-yl)ethyl]urea;

(89)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-fluorophenyl}-N'-[1-(4-methyl-1,3-thiazol-2-yl)ethyl]urea;

(90)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl}-N'-[1-(4-methyl-1,3-thiazol-2-yl)ethyl]urea;

(91)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[1-(4-methyl-1,3-thiazol-2-yl)ethyl]urea;

(93)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2,5-dimethylphenyl}-N'-[1-(4-methyl-1,3-thiazol-2-yl)ethyl]urea;

(94)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[1-(4,5-dimethyl-1,3-thiazol-2-yl)ethyl]urea;

(95)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl}-N'-[1-(4,5-dimethyl-1,3-thiazol-2-yl)ethyl]urea;

(98)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2,5-dimethylphenyl}-N'-[1-(4,5-dimethyl-1,3-thiazol-2-yl)ethyl]urea;

(99)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl}-N'-[1-(4,5-dimethyl-1,3-thiazol-2-yl)ethyl]urea;

(100)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[1-(5-methyl-1,3-thiazol-2-yl)ethyl]urea;

(101)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl}-N'-[1-(5-methyl-1,3-thiazol-2-yl)ethyl]urea; and

(105)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl}-N'-[1-(5-methyl-1,3-thiazol-2-yl)ethyl]urea.

Claim 96 (Previously Presented): The compound according to claim 22, which is selected from the group consisting of:

(2)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[(1S)-1-(4-fluorophenyl)ethyl]urea;

(5)N-{2-Chloro-4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[(1S)-1-(4-fluorophenyl)ethyl]urea;

(8)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2,5-dimethylphenyl}-N'-[(1S)-1-(4-fluorophenyl)ethyl]urea;

(11)N-{3-Chloro-4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[(1S)-1-(4-fluorophenyl)ethyl]urea;

(14)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methylphenyl}-N'-[(1S)-1-(4-fluorophenyl)ethyl]urea;

(17)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl}-N'-[(1S)-1-(4-fluorophenyl)ethyl]urea;

(20)N-[4-(6,7-dimethoxy-4-quinolyl)oxy]-2-(trifluoromethyl)phenyl]-N'-(1S)-1-(4-fluorophenyl)ethyl]urea;

(23)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-methoxyphenyl} -N'[(1S)-1-(4-fluorophenyl)ethyl]urea;

(26)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-2,3-dimethylphenyl} -N'-[(1S)-1-(4-fluorophenyl)ethyl]urea;

(29)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl} -N'-[(1S)-1-(4-fluorophenyl)ethyl]urea;

(32)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-fluorophenyl} -N'-[(1S)-1-(4-fluorophenyl)ethyl]urea;

(34)N-[(1S)-1-(4-bromophenyl)ethyl]-N'- {4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl} urea;

(35)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl} -N'-(1S)-1 -(4-nitrophenyl)ethyl]urea;

(41)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl} -W-[(1S)-1 -(4-methylphenyl)ethyl]urea;

(46)N-[(1S)-1-(3-bromophenyl)ethyl]-N'- {4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl} urea;

(47)N-[(1S)-1-(4-chlorophenyl)ethyl]-N'- {4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl} urea;

(49)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl} -N'-[(1S)-1 -(3-methoxyphenyl)ethyl]urea;

(51)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl} -N'-[(1S)-1-(2-methoxyphenyl)ethyl]urea; and

(53)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl} -N'-[(1S)-1 -(4-methoxyphenyl)ethyl]urea.